

APPENDIX A. FEDERAL S&E SUPPORT TO HISTORICALLY BLACK COLLEGES AND UNIVERSITIES

The number of historically black colleges and universities (HBCUs) receiving Federal S&E support decreased about one-quarter—from 79 to 59—between the early 1970s and early 1980s. (See figure A-1.) This trend was less dramatic for HBCUs than for academic institutions as a whole. (See figure 1.) The number of HBCUs receiving only “other S&E support” also decreased during this period. In the mid-1980s, the number of HBCUs receiving Federal R&D support and the number receiving “other S&E support” both began to increase, although it was not until the mid-1990s that the total number supported reached the level of the early 1970s.

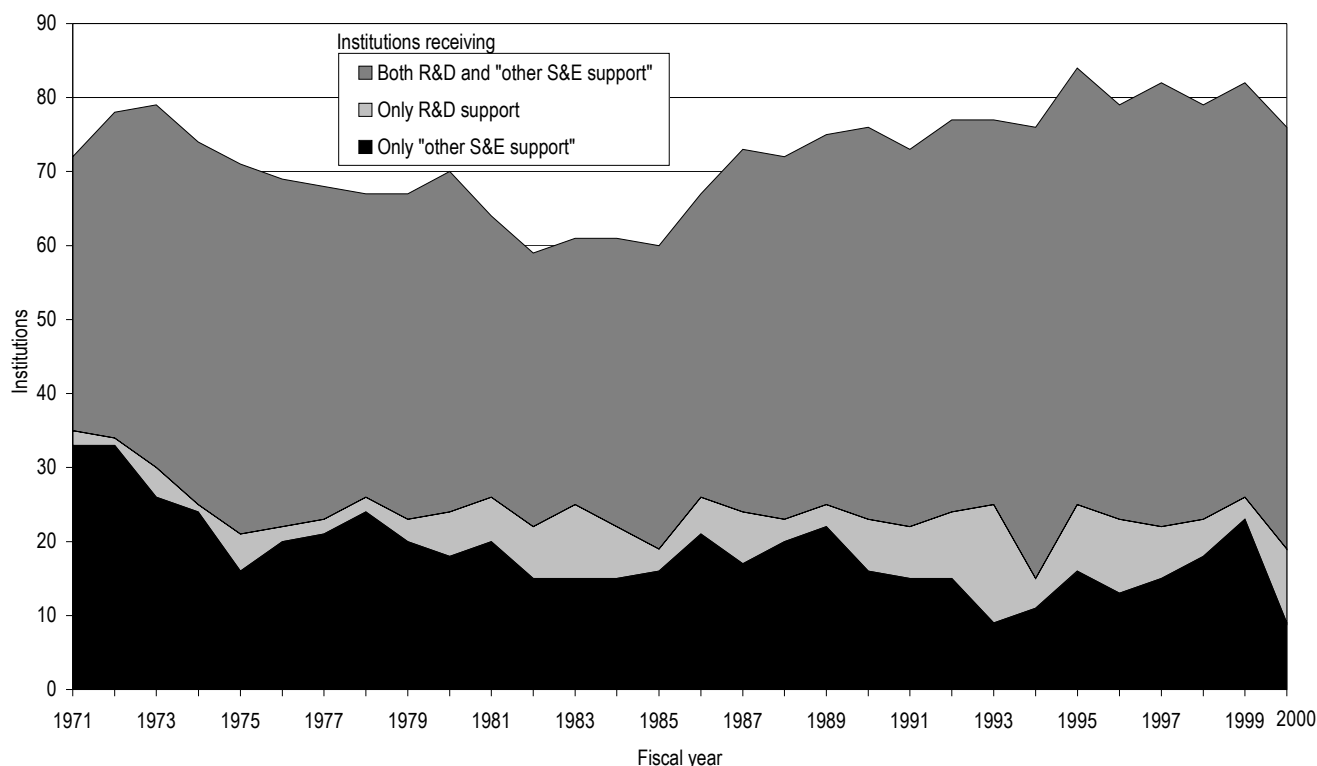
Although Federal S&E support was intermittent for most HBCUs, more than 40 percent of the 102 HBCUs

supported during FYs 1971–2000 received funding in every year, and nearly 60 percent received it in more than 20 years.¹⁰ (See figure A-2.) However, only 93 HBCUs received Federal R&D funding during the 30-year period, and only about 40 percent of those received it in more than 20 years.

Throughout the FY 1971–2000 period, the share of total S&E support directed to R&D was lower for HBCUs than for the academic sector as a whole. For

¹⁰ Although the WebCASPAR data system identifies 107 historically black colleges and universities, 3 are separate campuses of Southern University, which is consolidated in the Federal Support Survey. Consequently, only three HBCUs never received Federal S&E support during the FY 1971–2000 period.

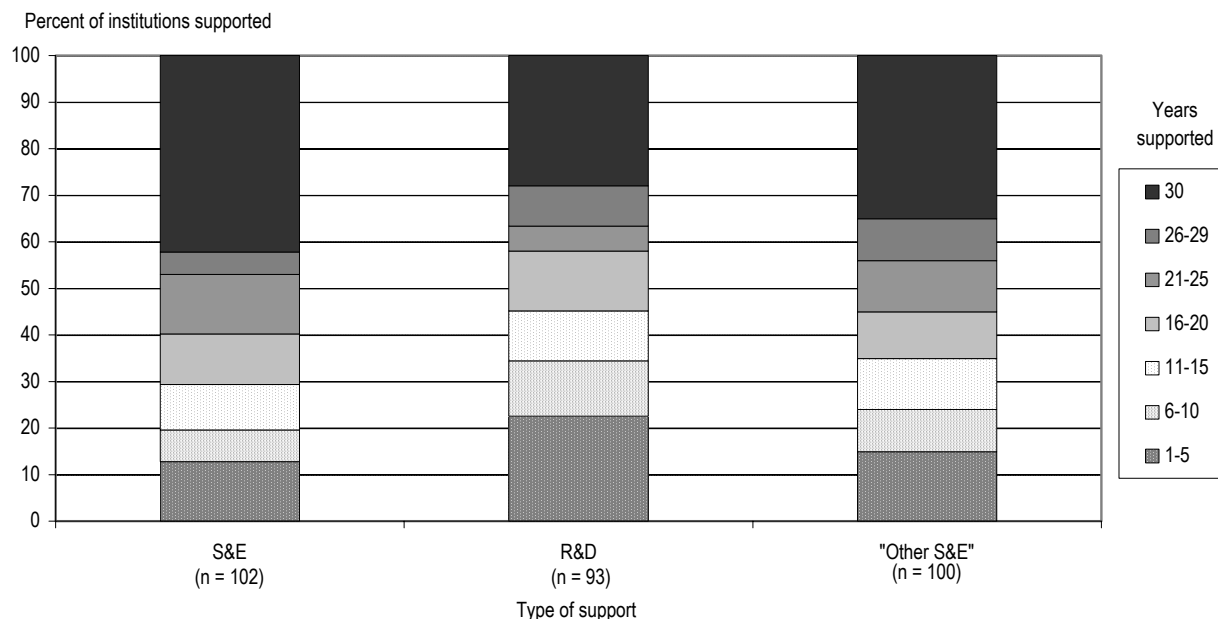
Figure A-1. Number of Historically Black Colleges and Universities receiving Federal S&E support, by type of support: FY 1971–2000



NOTE: S&E support includes R&D support (both R&D and R&D plant) and "other S&E support" (facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities).

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPAR data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).

Figure A-2. Distribution of Historically Black Colleges and Universities receiving Federal S&E support in FY 1971 to 2000, by number of years supported during the period, by type of support



NOTE: S&E support includes R&D support (both R&D and R&D plant) and "other S&E support" (facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities).

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPARE data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).

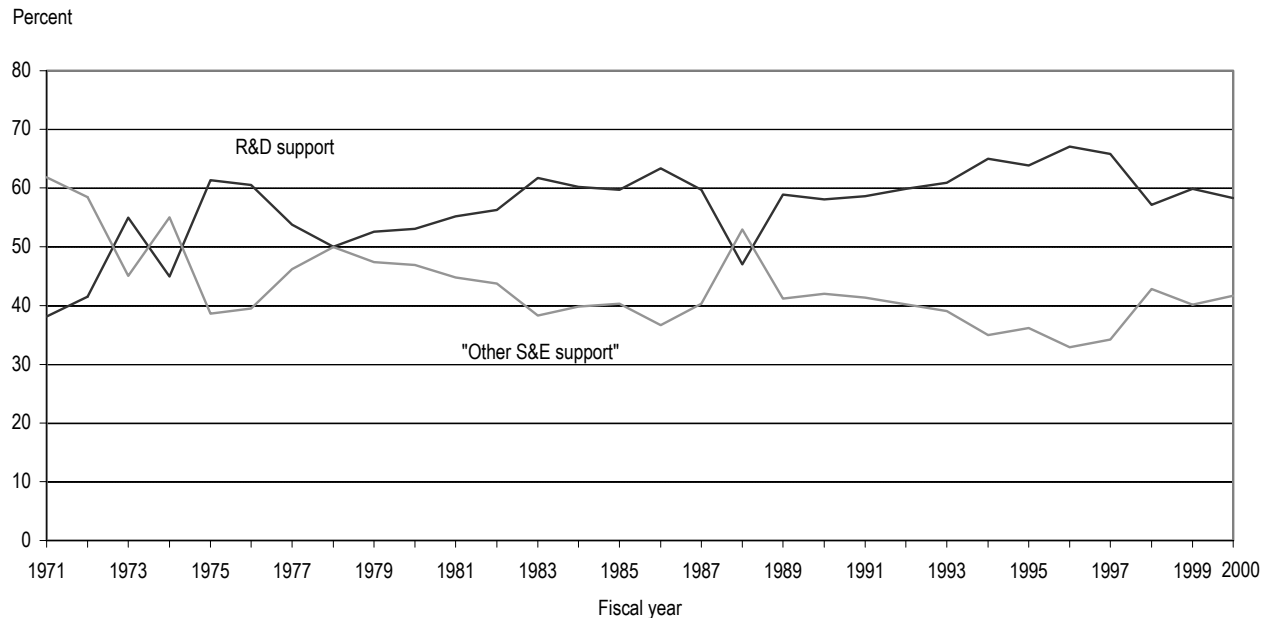
most of the period, about 60 percent of Federal S&E support for HBCUs was for R&D. In addition, the increase in the R&D share was less pronounced for HBCUs and occurred earlier. (See figure A-3 and figure 7.)

Although the HBCU share of Federal total S&E and R&D support was never large and did not change much during the FY 1971–2000 period, the share of Federal "other S&E support" rose steeply during the period. (See figure A-4.) The HBCU share of overall Federal S&E support hovered around 2 percent between 1971 and 2000. The share of R&D support increased from about 1 percent during the 1970s and 1980s to a high of 1.7 percent in FY 1995 and then declined to just a little more than 1 percent in FY 2000. The HBCU share of "other S&E support," however, increased from about 3 percent in the first half of the 1970s to about 6 percent in the second half of the 1990s. This share increase resulted from a doubling in the amount of funds provided to HBCUs for "other S&E support," while funding in this category barely changed for the academic sector as a whole. (See text table A-1).

Whereas HHS and NSF were the two main Federal sources of S&E support for the academic sector overall during almost the entire FY 1971–2000 period (see appendix table 1), the two main funding sources for HBCUs were USDA and HHS. (See text table A-2) One reason that USDA may provide proportionately more support to HBCUs than it does to academic institutions as a whole is that in 1890 the U.S. Congress created 18 Black land-grant colleges under the Morrill Act of 1862 to teach agriculture and the mechanic (engineering) arts at public universities in a number of southern states. All of these 1890 land grant institutions are current HBCUs.¹¹ During the 1970s and 1980s, USDA provided more than 40 percent of all Federal S&E support to HBCUs and HHS about 30 percent. During the 1990s, support to HBCUs was less concentrated, with USDA and HHS each providing just a little more than a quarter of the funds and three other agencies (NSF, DOD, and NASA) each providing 10 percent or more.

¹¹ For more information about the Morrill Act see <http://www.ree.usda.gov/1890/> and <http://www.nasulgc.org/1890/Profile.htm>.

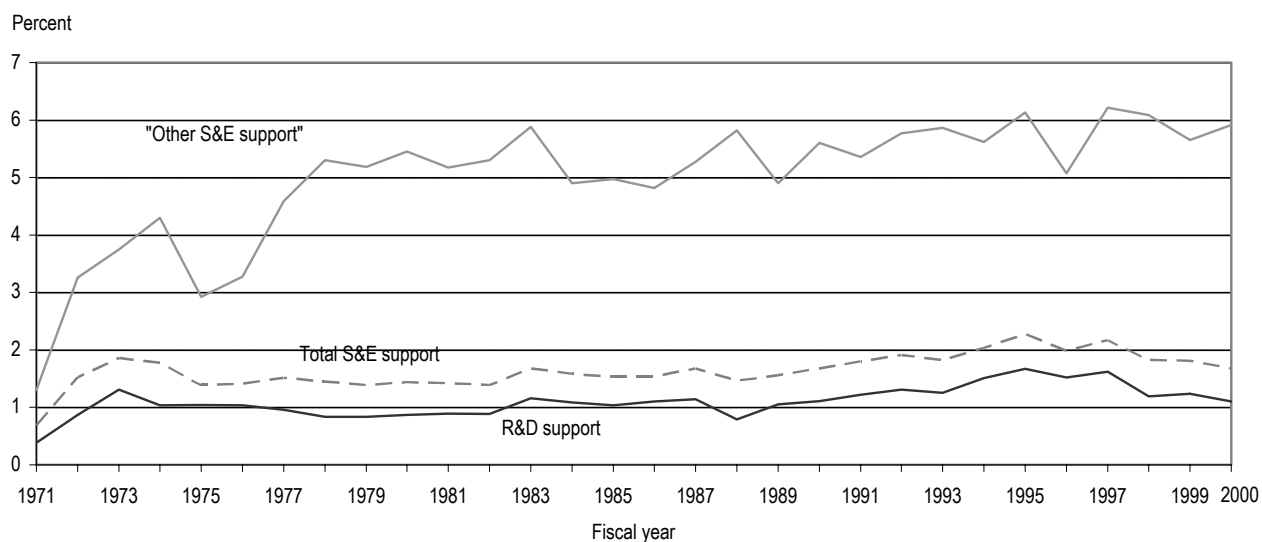
Figure A-3. **Composition of Federal S&E support to Historically Black Colleges and Universities, by type of support: FY 1971–2000**



NOTE: S&E support includes R&D support (both R&D and R&D plant) and "other S&E support" (facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities).

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPARD data system (available at <http://www.nsf.gov/sbe/srs/stats.htm>).

Figure A-4. **Share of Federal S&E support to academic institutions received by Historically Black Colleges and Universities, by type of support: FY 1971–2000**



NOTE: S&E support includes R&D support (both R&D and R&D plant) and "other S&E support" (facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities).

SOURCE: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions, as reported in WebCASPARD data system (available at <http://www.nsf.gov/sbe/srs/stats.htm>).

Table A-1. Federal "other S&E support" to Historically Black Colleges and Universities and to all academic institutions FY 1971–2000

(millions of 1996 constant dollars)

Period	Historically Black Colleges and Universities	All academic institutions
1971–1975.....	57	1,920
1976–1980.....	54	1,133
1981–1985.....	54	1,036
1986–1990.....	76	1,441
1991–1995.....	105	1,832
1996–2000.....	116	2,005

NOTE: "Other S&E support" includes support for facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities.

SOURCES: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions; and WebCASPAS data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).

Table A-2. Federal S&E support to Historically Black Colleges and Universities, percent by funding agency: FY 1971–2000

(10 year averages)

Agency	1971–1980	1981–1990	1991–2000
Total.....	100	100	100
HHS.....	31	29	26
NSF.....	14	5	10
USDA.....	42	45	28
DOD.....	1	5	11
DOE.....	1	3	4
EPA.....	1	1	1
NASA.....	5	6	14

KEY: HHS = Department of Health and Human Services; NSF = National Science Foundation; USDA = Department of Agriculture; DOD = Department of Defense; DOE = Department of Energy; EPA = Environmental Protection Agency; NASA = National Aeronautics and Space Administration.

NOTES: S&E includes R&D support (both the conduct of R&D and R&D plant) and "other S&E support" (facilities and equipment for S&E instruction; fellowships, traineeships, and training grants; general support for S&E; and other S&E activities).

SOURCES: National Science Foundation, Division of Science Resources Statistics, Survey of Federal Science and Engineering Support to Universities, Colleges, and Nonprofit Institutions; and WebCASPAS data system (available at <<http://www.nsf.gov/sbe/srs/stats.htm>>).